



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-1070; Project Identifier 2020-CE-004-AD]

RIN 2120-AA64

Airworthiness Directives; Diamond Aircraft Industries GmbH Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Diamond Aircraft Industries GmbH (DAI) Model DA 42, DA 42 NG, and DA 42 M-NG airplanes. This proposed AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a loose rudder T-yoke axle nut. This proposed AD would require replacing the rudder T-yoke axle with an improved rudder T-yoke axle. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria; phone: +43 2622 26700; fax: +43 2622 26780; email: office@diamond-air.at; website: <https://www.diamondaircraft.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1070; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the MCAI, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249; phone: (303) 342-1094; fax: (303) 342-1088; email: penelope.trease@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-1070; Project Identifier 2020-CE-004-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any

personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2019-0302, dated December 13, 2019 (referred to after this as “the MCAI”), to address an unsafe condition on DAI Model DA 42, DA 42 M, DA 42 M-NG, and DA 42 NG airplanes. The MCAI states:

Occurrences were reported of finding a loose rudder T-yoke axle nut on DA 42 aeroplanes.

This condition, if not detected and corrected, could lead to vertical movement of the axle, possibly resulting in reduced rudder control of the aeroplane.

To address this potential unsafe condition, DAI issued the applicable MSB [Mandatory Service Bulletin], providing instructions to inspect for correct installation of the self-locking nut to the affected part.

For the reason described above, this [EASA] AD requires repetitive inspections for correct installation of the self-locking nut to the affected part and, depending on findings, accomplishment of applicable corrective action(s) and replacement of the self-locking nut. This [EASA] AD also provides an optional terminating action for the repetitive inspections.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1070.

Related Service Information under 1 CFR Part 51

The FAA reviewed Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document), published with DAI Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 1, dated October 24, 2019 (issued as one document) attached. The service bulletin specifies complying with the work instruction, which contains procedures for replacing the rudder T-yoke axle with an improved (additional retaining pin) rudder T-yoke axle. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

FAA's Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require replacing the rudder T-yoke axle with an improved rudder T-yoke axle.

Differences Between this Proposed AD and the MCAI

The MCAI applies to the Model DA 42 M airplane and this proposed AD would not because it does not have an FAA type certificate.

The MCAI requires repetitively inspecting the self-locking nut until the rudder T-yoke axle is replaced with improved part number (P/N) D60-5320-00-32. This proposed

AD would require installing rudder T-yoke axle P/N D60-5320-00-32 and would not have an inspection requirement.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 193 airplanes of U.S. registry. The FAA estimates that it would take about 6 work-hours to replace the rudder T-yoke axle and require parts costing \$166. The average labor rate is \$85 per work-hour. Based on these figures, the FAA estimates the cost of this proposed AD on U.S. operators to be \$130,468 or \$676 per airplane.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Diamond Aircraft Industries GmbH: Docket No. FAA-2021-1070; Project Identifier 2020-CE-004-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Diamond Aircraft Industries GmbH Model DA 42, DA 42 NG, and DA 42 M-NG airplanes, serial numbers 42.004 through 42.391, 42.394 through 42.396, 42.399 through 42.402, 42.405 through 42.416, 42.427, 42.AC001 through 42.AC135, 42.AC137 through 42.AC145, 42.AC148, 42.AC150 through 42.AC152, 42.MN001 through 42.MN034, 42.MN037 through 42.MN042, 42.MN050 through 42.MN055, 42.MN057, 42.MN058, 42.MN100 through 42.MN103, 42.N001 through 42.N067, 42.N100 through 42.N250, 42.N300 through 42.N381, 42.N391, 42.NC001 through 42.NC004, and 42.NC006 through 42.NC008, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5320, Fuselage Miscellaneous Structure.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as a loose rudder T-yoke axle nut. The FAA is issuing this AD to prevent movement of the T-yoke axle. The unsafe condition, if not addressed, could result in reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 100 hours time-in-service after the effective date of this AD or 12 months after the effective date of this AD, whichever occurs first, replace rudder T-yoke axle part number (P/N) LN 9037-M6x90 with rudder T-yoke axle P/N D60-5320-00-32 in accordance with the Instructions, section III, in Diamond Aircraft Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 1, dated October 24, 2019 (issued as one document) attached to Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019.

(2) As of the effective date of this AD, do not install rudder T-yoke axle P/N LN 9037-M6x90 on any airplane.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249; phone: (303) 342-1094; fax: (303) 342-1088; email: Penelope.Trease@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2019-0302, dated December 13, 2019, for more information. You may examine the EASA AD in the AD docket at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1070.

(3) For service information identified in this AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria; phone: +43 2622 26700; fax: +43 2622 26780; email: office@diamond-air.at; website: <https://www.diamondaircraft.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on December 8, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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